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BPK 110 Final Exam
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Fall 2020

Multiple Choice (30)
Read the questions and choices carefully and highlight ONE best answer.

1. Nutritional epigenetics:
    a. Looks at how certain nutritional factors are more likely to turn genes on or off
    b. Is the study of how nutrition can change your DNA sequence
    c. Is mostly focused on changes in DNA that occur in later life

2. Which of the following provides the **MOST** sodium in Canadian diet?
    a. Sodium added to processed foods
    b. Saltshaker at the table
    c. Meat products
    d. Home cooking

3. Which of the following is NOT required on a natural food label in Canada?
    a. Any product warnings
    b. Product name
    c. Nutrition facts box
    d. List of ingredients

4. Which of the following can be used to evaluation someone's nutritional health?
    a. Dietary analysis
    b. Body scans and tests
    c. Laboratory test (such as blood tests)
    d. All of these methods can be used to assess nutritional health

5. Which of the following is **NOT** a main organ of the digestive tract?
    a. Gall bladder
    b. Large intestine
    c. Stomach

6. Which of the following statements is TRUE?
    a. Partly broken-down food in the oesophagus is called the chyme
    b. Peristalsis can occur in the oesophagus and in the small intestine
    c. Segmentation occurs in the oesophagus

7. Which of the following body parts of Gastroesophageal Reflux Disease (GERD) occur in?
    a. Gallbladder
    b. Small intestines
    c. Rectum
    d. Stomach

8. Which macronutrient is NOT organic?
    a. Water
    b. Proteins
    c. Vitamins
    d. Minerals

9. Water is needed for proper function of our bodies. Where does the water in our bodies come from?
    a. Liquids we drink
    b. Foods we consume
    c. All of the choices mentioned here are correct

10. Lactose intolerance results from:
    a. Repeated autoimmune response to the protein lactose
    b. Not having enough of the enzyme lactase
    c. Having too much of the enzyme lactase

11. Fibre is an important part of our diet. What are the benefits of fibre?
    a. Heart healthy,
    b. Lowers cholesterol levels
    c. Good for colon
    d. All of the above

12. The cell membrane is mostly made of _____.
    a. Carbohydrate
    b. Protein
    c. Lipids

13. The process of hydrogenation:
    a. Significantly decreases risk of CVD
    b. Turns unsaturated fatty acids into saturated fatty acids
    c. Converts trans fatty acids into the cis configuration

14. Which of the following is considered **MOST HEALTHY** by nutrition experts?
    a. Avocado
    b. Coconut oil
    c. Flax seed

15. All polypeptides are functional proteins.
    a. True
    b. False

16. What is the nutritional benefit of plant-based protein compared to animal-based protein?
    a. It is higher in vitamins
    b. It is higher in fibre
    c. It is higher in saturated fats

17. A diet that includes meat **INCREASES** risk of:
    a. Vitamin B12 deficiency
    b. Cardiovascular disease
    c. Deficiencies in the essential amino acids

18. Folate/folic acid:
    a. Is fortified in cereal grain
    b. Is naturally occurring in leafy greens (such as spinach)
    c. Is needed for pregnant moms to keep their babies healthy
    d. All of the choices mentioned here are correct

19. Which of the following is an organic micronutrient?
    a. Vitamin D
    b. Sugar
    c. Iron

20. Which of the following can function as a coenzyme?
    a. Calcitonin
    b. Riboflavin
    c. Tyrosine

21. Which of the following is good to consume with a source of iron?
    a. Phytates
    b. Vitamin C
    c. Caffeine

22. Calcitonin is released when _____ levels rise.
    a. Parathyroid hormone
    b. Calcium
    c. None of the above

23. Which of the following is typically **TRUE**?

a. When energy intake is lower than energy output, you tend to lose weight
b. When energy intake is higher than energy output, you tend to stay the same weight
c. When energy expenditure equals energy intake, you tend to gain weight

24. A growling stomach is indicative of _____.
a. Hyperglycemia
b. Satiation
c. Hunger

25. The common eating disorders in our society include binge eating, anorexia, and bulimia.
a. True
b. False

26. What does the EER give us information about?
a. The amount of energy required to maintain your daily life
b. Intake level which meets the needs of 50% of the population
c. Intake range for a particular energy source

27. You should consume protein during a short bout of exercise (<30 minutes) to help muscle growth and repair.
a. True
b. False

28. Which of the following is a component of the female athlete triad?
a. Menstrual (period) disturbances
b. Disordered eating/low energy availability
c. Increased risk of stress fractures
d. All of the above

29. If you are running on a treadmill for 30 minutes, which source of energy are you using primarily?
a. Protein
b. Fat
c. ATP

30. Athletes typically have an increased protein requirement to help fuel their increased energy demand which is why they need to take protein supplements.

a. True
b. False

Fill-in-the-Blank (10)
Complete the following sentences with the words found below. Each word can only be used once.

Segmentation	Minerals
Peptide	Cardio
Alcohol dehydrogenase	Bioavailability
Blind	Monounsaturated
Energy Availability	Tertiary

31. Alcohol is broken down by the enzyme _____.

    Answer: Alcohol dehydrogenase

32. When a participant doesn't know if they are consuming the whole-grain placebo or real whole-grains, this is an example of a _____ experiment.

    Answer: Blind

33. _____ contractions help with mixing of foodstuffs in intestines to help move food forward.

    Answer: Segmentation

34. _____ fats are considered a healthy fat.

    Answer: Monounsaturated

35. The _____ structure of protein can result in further folding of the polypeptide chain.

    Answer: Tertiary

36. Amino acids are held together by _____ bonds in the primary structure of proteins.

    Answer: Peptide

37. How much of a nutrient that can be absorbed and used in the human body is known as _____.

Answer: Bioavailability

38. _____ are the only inorganic micronutrient.

Answer: Minerals

39. Energy intake - exercise expenditure = _____

Answer: Energy availability

40. If you want to burn more total calories on the elliptical machine in the gym, you should exercise in the _____ zone.

Answer: Cardio

Written Questions
Answer the following questions in full sentences and with as much detail as you can.

41. Match the following nutrients with the way that it is absorbed in the small intestine.

Osmosis – Water

Passive Diffusion – Vitamins

Facilitator Diffusion – Fructose

Active Transport – Glucose

~~**Vitamins**~~

~~**Fructose**~~

~~**Water**~~

~~**Glucose**~~

42. Assume your soccer team has a midday game (duration at least 90 minutes) and the temperature is 30 °C. During the game you are dripping sweat.
    a. What is the purpose of sweating?

The purpose of sweating helps regulate our body temperature.

    b. When you sweat, what is lost from your body?

When you sweat, you lose water and electrolyte (sodium, potassium,and chloride) Because sweat is made of water and sweat contains electrolytes, potassium and chloride.

    c. What should you think about doing when you are sweating a lot?

You should drink more water or stay cool from the sun.

43. Where is bile made?
The bile is made from the liver.

    a. Where is it stored?
    The bile is stored in the gallbladder.

    b. What does bile do?
    The bile breaks down larger lipids into smaller pieces.

44. Discuss the health benefits and risks of a vegetarian diet. Provide 3 benefits and 3 risks.

Benefits:

- Lower risk heart disease
- Lower risk of diabetes (type 2)
- Save to eat vegetables

Risks

- Not having enough vitamins
- Vitamin B12 deficiency
- You have to take vitamin supplements

45. What is the difference between healthy diets and fad diets? Provide 3 points for each.

Healthy diet:

- Balanced diet
- Exercise more
- Can resist heart disease

Fad diet

- Does not teach healthy eating plans
- Increased risk of chronic disease
- Eliminates fruits and vegetables